

# Comparisons of Job Characteristics

**Focus Occupation:** [Architectural and Engineering Managers \(11-9041\)](#)

**Associated Occupation:** [Health and Safety Engineers, Except Mining Safety Engineers and Inspectors \(17-2111\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

## Knowledge

Similarity of Focus Occupation to Associated Occupation: 86

**Focus Occupation:** Architectural and Engineering Managers (11-9041)

**Associated Occupation:** Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Engineering and Technology	5.7	18.9	23.2	>>	Current knowledge level is likely more than sufficient
Design	5.2	15.9	19.0	>	Current knowledge level is likely sufficient
Mathematics	9.2	15.1	17.4	>	Current knowledge level is likely sufficient
Physics	4.3	14.1	13.0	0	Current knowledge level may be sufficient
Public Safety and Security	6.9	14.0	10.0	<<	Extensive education and/or training may be required
Chemistry	4.8	13.0	6.6	<<	Extensive education and/or training may be required
Law and Government	5.9	12.4	8.6	<<	Extensive education and/or training may be required
Building and Construction	4.0	10.3	10.7	0	Current knowledge level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Skills

Similarity of Focus Occupation to Associated Occupation: 78

**Focus Occupation:** Architectural and Engineering Managers (11-9041)

**Associated Occupation:** Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Critical Thinking	10.8	14.4	12.8	<	A higher skill level may be required
Science	4.5	12.4	8.7	<<	Extensive development of skills in this area may be required
Operations Analysis	5.0	11.0	13.9	>	Skill level is likely sufficient
Systems Analysis	6.5	10.6	10.7	0	Current skill level may be sufficient

Systems Evaluation	6.4	10.5	10.7	0	Current skill level may be sufficient
Technology Design	2.6	5.8	3.3	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Abilities

Similarity of Focus Occupation to Associated Occupation: 95

**Focus Occupation: Architectural and Engineering Managers (11-9041)**

**Associated Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111)**

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Problem Sensitivity	11.1	15.3	13.9	<	Some improvement in abilities may be required
Inductive Reasoning	10.2	14.3	12.5	<	Some improvement in abilities may be required
Deductive Reasoning	10.6	14.1	13.9	0	Current ability level may be sufficient
Written Comprehension	11.0	14.1	15.2	0	Current ability level may be sufficient
Written Expression	9.8	13.4	13.8	0	Current ability level may be sufficient
Near Vision	11.1	12.7	12.5	0	Current ability level may be sufficient
Information Ordering	9.9	11.9	12.0	0	Current ability level may be sufficient
Fluency of Ideas	7.6	11.0	10.1	0	Current ability level may be sufficient
Flexibility of Closure	7.8	10.9	7.9	<<	Extensive improvement in abilities may be required
Far Vision	7.8	10.2	8.4	<	Some improvement in abilities may be required
Speed of Closure	5.9	8.2	5.2	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 71

**Focus Occupation: Architectural and Engineering Managers (11-9041)**

**Associated Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111)**

Work Activities	Exclusivity of Activity
Adhere to safety procedures	12
Advise clients regarding engineering problems	67
Communicate technical information	4
Develop safety regulations	74
Direct and coordinate activities of workers or staff	3
Evaluate engineering data	60
Make presentations	13
Plan testing of engineering methods	72

Prepare technical reports or related documentation	22
Read blueprints	10
Read schematics	34
Read technical drawings	7
Resolve engineering or science problems	46
Understand engineering data or reports	48
Use intuitive judgment for engineering analyses	72
Use pollution control techniques	62
Use scientific research methodology	21
Use technical regulations for engineering problems	61

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Tools and Technologies that Both Occupations Have in Common

Similarity of Focus  
Occupation to Associated  
Occupation: 53

**Focus Occupation: Architectural and Engineering Managers (11-9041)**

**Associated Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111)**

Tools and Technologies	Exclusivity
Business function specific software	1
Computer data input devices	2
Computers	1
Content authoring and editing software	1
Content management software	6
Data management and query software	1
Electrochemical measuring instruments and accessories	9
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Laboratory enclosures and accessories	17
Laboratory heating and drying equipment	13
Pressure measuring and control instruments	10
Spectroscopic equipment	10
Temperature and heat measuring instruments	6

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.